

Mod. 5 Cardiac Emergencies

1. **Which of the following heart chambers pumps oxygenated blood to the body?**
 - a. Left ventricle
 - b. Left atrium
 - c. Right ventricle
 - d. Right atrium
2. **Which of the following would be the result of an obstruction in a branch of the pulmonary artery?**
 - a. Blood is not pumped to the brain.
 - b. Blood cannot return from the lungs.
 - c. Blood is not pumped to the lungs.
 - d. Blood cannot return from the brain to the heart.
3. **Which of the following is the way in which the heart muscle receives oxygen?**
 - a. Blood from the pulmonary vein enters capillaries in the myocardium.
 - b. Blood surrounds the heart in the pericardial sac.
 - c. Blood from the aorta enters the coronary arteries.
 - d. Blood from the left ventricle enters capillaries in the myocardium.
4. **Which of the following is the general term used to refer to a problem with the heart?**
 - a. Myocardial infarction
 - b. Cardiac dysrhythmia
 - c. Cardiac compromise
 - d. Congestive heart failure
5. **Which of the following may be a symptom of a problem with the heart?**
 - a. Mild chest discomfort
 - b. Severe, crushing pain in the chest
 - c. Nausea, with or without vomiting
 - d. All of the above
6. **Which of the following BEST describes a fluttering sensation in the chest?**
 - a. Pulseless electrical activity of the heart
 - b. Palpitations
 - c. Dysrhythmia
 - d. Tachycardia
7. **Your patient is a 49-year-old male with a history of heart problems. Assuming he has a bottle of nitroglycerin tablets with him, under which of the following circumstances could you administer the nitroglycerin to the patient?**
 - a. The patient is complaining of dyspnea and has a blood pressure of no greater than 100 mmHg systolic.
 - b. The patient's personal physician is on the scene and has advised you to administer the nitroglycerin.
 - c. The patient complains of chest pain and has a blood pressure of 132/90 mmHg.
 - d. The patient has taken at least three tablets on his own without relief.
8. **Assuming your protocol allows the administration of nitroglycerin when certain conditions exist, what is the maximum number of tablets to be administered in the prehospital setting?**
 - a. 2
 - b. 3
 - c. 4
 - d. 1
9. **In which of the following situations would the administration of aspirin to a cardiac patient be prohibited?**
 - a. The patient does not currently take aspirin.
 - b. The patient has a history of asthma.
 - c. The patient has a diastolic blood pressure greater than 90 mmHg.
 - d. None of the above

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10. **Which of the following is the name of the condition in which fatty deposits form in the inner lining of the arteries?**
 - a. Arteriosclerosis
 - b. Coronary artery disease
 - c. Coronary thrombosis
 - d. Aneurysm
11. **A weakened area of an artery that balloons out and may rupture, causing catastrophic bleeding, is called:**
 - a. angina.
 - b. asystole.
 - c. aneurysm.
 - d. angioplasty.
12. **Which of the following cardiac dysrhythmias cannot produce a pulse?**
 - a. Ventricular tachycardia
 - b. Ventricular fibrillation
 - c. Bradycardia
 - d. Tachycardia
13. **Which of the following is NOT typical of angina pectoris?**
 - a. Responds to nitroglycerin
 - b. Lasts 3 to 5 minutes
 - c. Often subsides with rest
 - d. All of the above are typical findings of angina pectoris.
14. **Which of the following is the beneficial action of nitroglycerin in some cardiac emergencies?**
 - a. It dilates blood vessels throughout the body.
 - b. It dilates only the coronary arteries.
 - c. It increases the strength with which the ventricles contract.
 - d. It slows down the heart.
15. **Which of the following is the result of a portion of the heart muscle dying due to a lack of oxygen?**
 - a. Angina pectoris
 - b. Myocardial infarction
 - c. Cardiac arrest
 - d. Heart failure
16. **Which of the following is the name given to the condition in which fluid accumulates in the lungs?**
 - a. Chronic obstructive pulmonary disease
 - b. Pulmonary edema
 - c. Pedal edema
 - d. Dyspnea
17. **Which of the following is the EMT's role in caring for a patient with chest pain?**
 - a. Treat the patient as though he were having a heart attack.
 - b. Provide automatic external defibrillation.
 - c. Make an interpretation of the patient's cardiac rhythm.
 - d. Determine the cause of the patient's chest pain.
18. **Which of the following statements concerning heart attacks and cardiac arrest is NOT true?**
 - a. Many patients may mistake their symptoms for other causes such as indigestion.
 - b. Some patients who have heart attacks live active and healthy lifestyles.
 - c. Heart attacks present differently among women and men.
 - d. The most common initial rhythm in sudden cardiac death is asystole.

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19. **Which of the following statements regarding the administration of nitroglycerin tablets is true?**
- An increase in blood pressure should be expected.
 - The patient may complain of a headache following administration.
 - If it is fresh it will have no noticeable taste.
 - It takes 20 to 30 minutes for nitroglycerin to have an effect.
20. **Which of the following statements regarding angina pectoris is true?**
- It can be brought on by exertion or stress.
 - It is generally relieved by over-the-counter medications.
 - It results in death of a smaller portion of myocardium than does a heart attack.
 - It generally lasts 30 to 60 minutes.
21. **Which of the following is the beneficial action of a beta blocker medication?**
- Causes vasoconstriction, increasing the blood pressure
 - Slows the heart rate
 - Increases the amount of oxygen needed by the myocardium
 - Increases the strength of myocardial contraction
22. **Which of the following terms refers to swelling of the lower extremities seen in many cardiac patients?**
- Presacral swelling
 - Crackles
 - Congestive heart failure
 - Pedal edema
23. **Which of the following is NOT a typical indication of congestive heart failure?**
- Productive cough
 - Wet sounding breath sounds
 - Increased heart rate
 - Low blood pressure
24. **Your patient is a 44-year-old female who has collapsed while jogging. She has been unresponsive for 4 to 5 minutes by the time you arrive. Her husband appears to be performing high-quality CPR. Which of the following should be your first action?**
- Insert an oropharyngeal airway and begin ventilations.
 - Load the patient into the ambulance for further assessment.
 - Apply the AED.
 - Stop CPR and check for a pulse.
25. **Defibrillation is indicated for which of the following situations?**
- Pulseless electrical activity
 - Pulseless bradycardia
 - Asystole
 - Pulseless ventricular tachycardia
26. **Which of the following should NOT be done during defibrillation?**
- Pressing the defibrillation pads firmly to the chest to ensure good contact
 - Continued ventilation during the analysis phase to prevent hypoxia
 - Shaving the chest before placing the defibrillation pads to improve contact
 - Performing CPR while the AED is being attached

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27. **Your patient is a 59-year-old man who has collapsed while working in the yard. He has been unresponsive for 4 to 5 minutes by the time you arrive. His neighbor is attempting CPR, but the quality is questionable. Which of the following should be your first action?**
- Apply the AED.
 - Load the patient into the ambulance for further evaluation.
 - Ask your partner to take over CPR from the neighbor.
 - Ask the neighbor to stop CPR so you can check the patient's pulse.
28. **Which of the following BEST describes the EMT's intended role in the ideal provision of emergency cardiac care?**
- Early notification
 - Early advanced cardiac life support
 - Early defibrillation
 - Early CPR
29. **Automatic defibrillation is not appropriate in most cases of infant cardiac arrest due to which of the following?**
- Ventricular fibrillation is not the primary cause of cardiac arrest in the pediatric patient.
 - The energy delivered by the AED is not appropriate to a smaller patient.
 - Both A and B are correct.
 - Neither A nor B is correct.
30. **Which of the following BEST describes the continued need for prehospital advanced cardiac life support, even when EMTs in the community carry AEDs?**
- Not all cardiac arrests are due to problems that respond to defibrillation.
 - The patient may need medications to support his cardiac rhythm and blood pressure following successful defibrillation.
 - In cases of refractory or recurrent ventricular fibrillation, the use of medications may increase the chances of defibrillating successfully.
 - All of the above
31. **Your patient is a 60-year-old male who is complaining of severe chest pain and difficulty breathing. He is pale, sweaty, and pleads with you, "Don't let me die, I think I'm going to die." Which of the following measures is NOT part of your initial treatment of this patient?**
- Giving 15 lpm of oxygen by nonrebreather mask
 - Applying the defibrillator pads to his chest
 - Determining whether you should assist the patient in taking nitroglycerin
 - Placing the patient in a position of comfort
32. **Which of the following is NOT a reason that an AED may indicate that there is "no shock advised"?**
- The patient's heart has no electrical activity; he is "flat line," or in asystole.
 - The patient's heart rhythm is normal.
 - The patient has organized electrical activity in the heart but no pulse.
 - The patient is in ventricular fibrillation or pulseless ventricular tachycardia.
33. **Which of the following is NOT a role of the EMT in providing emergency cardiac care?**
- CPR
 - Early defibrillation
 - Administration of epinephrine
 - Airway management
34. **Which of the following patients should have an automated external defibrillator applied?**
- A 67-year-old man with severe, crushing chest pain that is not relieved by nitroglycerin
 - A 6-month-old suspected of having SIDS
 - A 19-year-old college athlete who collapsed during football practice and is pulseless and apneic
 - A 40-year-old female in cardiac arrest due to chest injuries sustained in a motor vehicle crash

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35. **In which of the following ways does cardiac arrest in children differ from cardiac arrest in adults?**
- Cardiac arrest in children is more likely to be due to respiratory failure.
 - Ventricular fibrillation is common in children.
 - Ventricular fibrillation is not common in adults.
 - Cardiac arrest in adults is more likely to be due to respiratory failure.
36. **When using an AED, which of the following people is responsible for calling to "clear" the patient before delivering a shock?**
- The EMT at the patient's head
 - The EMT operating the defibrillator
 - The EMT managing the airway
 - The EMT doing chest compressions
37. **Which of the following people is allowed to continue providing patient care when the patient is to be "cleared" for delivery of a shock via the defibrillator?**
- The EMT performing bag-valve-mask ventilations
 - The provider who is ventilating the patient, so long as the patient has been intubated by a paramedic so the provider does not directly touch the patient
 - Anyone in contact with the patient below the level of the patient's knees
 - None of the above
38. **Which of the following is the basis for applying an AED only to patients who are not breathing and who do NOT have a pulse?**
- Defibrillators recognize ventricular tachycardia, which may be accompanied by a pulse.
 - Defibrillators recognize ventricular fibrillation, which may be accompanied by a pulse.
 - Defibrillators will shock asystole, which may occur in patients who are conscious.
 - None of the above
39. **You have just arrived at an airport terminal where an airport employee has applied an AED to a patient who collapsed inside the gate area. The AED delivers the third shock as you place your equipment on the floor next to the patient. Which of the following should you do next?**
- Have your partner begin CPR.
 - Administer three more shocks.
 - Prepare the patient for transport.
 - Both A & C
40. **Which of the following BEST describes an appropriate shock sequence for the patient in pulseless VT?**
- Shock, 2 minutes of CPR, analyze, shock again
 - Shock, shock, shock, pulse check, 2 minutes of CPR, shock, shock, shock
 - Shock, pulse check, shock, pulse check, shock, pulse check
 - Shock, shock, shock, shock
41. **You are transporting a 50-year-old male patient whom you successfully defibrillated at the scene. You are 5 minutes away from the hospital when the patient goes back into cardiac arrest. Which of the following is the best course of action?**
- Analyze the cardiac rhythm and deliver shocks as necessary.
 - Tell the driver to stop, analyze the cardiac rhythm, and deliver a shock as necessary.
 - Tell the driver to stop and assist you with CPR, and request another unit for assistance.
 - Initiate CPR and continue transporting.

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42. **You are the first on the scene of a 72-year-old patient in cardiac arrest. You have your medical supply kit, oxygen, and an AED. At least 4 to 5 minutes of high-quality CPR has been provided by the police officer who arrived before you. You have confirmed an open airway, apnea, and pulselessness. Which of the following should you do next?**
- Perform one-rescuer CPR until additional personnel arrive.
 - Apply the defibrillator pads and shock as indicated.
 - Perform bag-valve-mask ventilations with supplemental oxygen for 30 seconds before applying the defibrillator pads.
 - Contact medical direction before taking any action.
43. **Your patient is a 66-year-old female who has regained a pulse after a shock with an AED; however, she remains unresponsive and is not breathing adequately. Which of the following should be done next?**
- Assist ventilations with a bag-valve-mask device and supplemental oxygen and anticipate that the patient may go back into cardiac arrest.
 - Deliver a fourth shock to improve the patient's respiratory status.
 - Remove the AED and assist the patient's ventilations with a bag-valve-mask and supplemental oxygen, and keep re-assessing the pulse.
 - Apply a nonrebreather mask with high-concentration oxygen and keep reassessing the pulse.
44. **Which of the following BEST describes the purpose of a continuous quality improvement program for AED?**
- Taking disciplinary action for patient care errors
 - Eliminating the need for medical direction
 - Replacing continuing education
 - Improving patient outcomes in the community
45. **You are treating a patient with signs and symptoms of a myocardial infarction (MI). What is the most important drug you should administer?**
- Oxygen
 - Albuterol
 - Epinephrine auto-injector (Epi-Pen®)
 - Aspirin
46. **You suspect that your patient is suffering from angina pectoris. What signs or symptoms would you expect to see with this condition?**
- Chest pain that is relieved with nitroglycerin
 - Chest pain that is not relieved with nitroglycerin
 - Chest pain that is not relieved with rest
 - Chest pain that radiates to the leg
47. **You are treating a male patient with chest pain caused by the complete occlusion of one of the coronary arteries. What would you most likely expect with this patient?**
- His pain will go away with oxygen.
 - His pain will be reduced with aspirin.
 - His pain will be alleviated with nitroglycerin.
 - His pain will not be alleviated with any of the above medications.
48. **You are on the scene of a 64-year-old male with substernal chest pain. His vital signs are blood pressure 90/70, pulse 80, respiratory rate 20, and oxygen saturation 95 percent on room air. He has a history of angina pectoris and high cholesterol. The patient is not allergic to any medications. What medications should you administer?**
- Oxygen
 - Oxygen, nitroglycerin, and aspirin
 - Oxygen and aspirin
 - No medications

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49. You are on the scene of a 78-year-old male patient complaining of posterior chest pain that he states feels "like someone is tearing out my back." What condition do you suspect?
- Myocardial infarction
 - Congestive heart failure
 - Aortic aneurysm
 - Angina pectoris
50. You are on the scene of a 68-year-old male patient complaining of severe chest pain for the last 20 minutes. He has a previous history of myocardial infarction and states it feels "just like the last time." You have applied oxygen and assisted him in administering aspirin and nitroglycerin with no reduction in the chest pain. Your nearest facility is 5 minutes away, a Level III Trauma Center is 10 minutes away, and a hospital with cardiac catheterization capabilities is 20 minutes away. The patient is requesting to be transported to his cardiologist's hospital, which is 30 minutes away. Which hospital is the best destination?
- The nearest facility
 - The trauma center
 - The hospital the patient requests
 - The nearest hospital with cardiac catheterization
51. You respond to the scene of a 4-year-old female patient in cardiac arrest. CPR is in progress. What is the most likely cause of the cardiac arrest?
- Ventricular fibrillation
 - Congenital abnormality
 - Congestive heart failure
 - Pneumonia
52. You are on-scene with a 48-year-old unresponsive male patient. Bystanders state he complained of chest pain and then suddenly collapsed. Vital signs are blood pressure 68/p, pulse 36, and respiratory rate 3. He is unresponsive to painful stimuli. After performing the primary assessment and treating all life threats, what is your next intervention?
- Insert an oral airway.
 - Administer high-concentration oxygen at 15 lpm by bag-valve mask.
 - Package the patient for rapid transport.
 - Apply the AED.
53. You respond to the scene of a 56-year-old obese female complaining of respiratory distress. She states that she has been feeling weak and a "little sick" for the past two days but the respiratory distress has been getting progressively worse for the past several hours. She states she has "heart problems," suffers from high blood pressure, and takes a "water pill." She is afebrile and has coarse crackles (rales) bilaterally. What is most likely the cause of her respiratory distress?
- Pneumonia
 - Influenza
 - Aortic aneurysm
 - Congestive heart failure
54. You arrive on-scene of a 56-year-old female patient in cardiac arrest. What is the first airway you should administer?
- Nasopharyngeal airway
 - Oropharyngeal airway
 - Combitube
 - Pharyngeal-Tracheal Lumen airway

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55. **You arrive on-scene of a 60-year-old female patient in cardiac arrest. What is the best airway that you, as an EMT, can provide for the patient?**
- Oral airway
 - Nasal airway
 - Endotracheal airway
 - Combitube
56. **Which intervention is proven to be the most effective in obtaining a return of spontaneous circulation (ROSC) in a cardiac arrest patient?**
- Combitube
 - Early CPR
 - High-concentration oxygen by bag-valve mask
 - Early defibrillation
57. **You are on the scene of a 65-year-old female patient in cardiac arrest. CPR is in progress and the AED has been applied. The AED does not advise shock. What is your next intervention?**
- Stop CPR and place the patient in the recovery position.
 - Insert a Combitube.
 - Continue CPR.
 - Replace the malfunctioning AED.
58. **You are on the scene of a 65-year-old female patient in cardiac arrest. CPR is in progress and the AED has been applied. The AED advises shock. After defibrillating the patient, what is your next intervention?**
- Place in the recovery position.
 - Insert a Combitube.
 - Check for a pulse.
 - Continue CPR.
59. **You are on the scene of a 70-year-old female patient in cardiac arrest. CPR is in progress and the AED has been applied. After defibrillating the patient with an AED, you get return of spontaneous circulation but the patient is still unresponsive and in respiratory arrest. What is your next intervention?**
- Rapid transport.
 - Insert a Combitube.
 - Cover the patient to prevent hypothermia.
 - Place in the Trendelenburg position.

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Test Name: mod 5 cardiac emergencies

1. a. Left ventricle
2. c. Blood is not pumped to the lungs.
3. c. Blood from the aorta enters the coronary arteries.
4. c. Cardiac compromise
5. d. All of the above
6. b. Palpitations
7. c. The patient complains of chest pain and has a blood pressure of 132/90 mmHg.
8. b. 3
9. b. The patient has a history of asthma.
10. b. Coronary artery disease
11. c. aneurysm.
12. b. Ventricular fibrillation
13. d. All of the above are typical findings of angina pectoris.
14. a. It dilates blood vessels throughout the body.
15. b. Myocardial infarction
16. b. Pulmonary edema
17. a. Treat the patient as though he were having a heart attack.
18. d. The most common initial rhythm in sudden cardiac death is asystole.
19. b. The patient may complain of a headache following administration.
20. a. It can be brought on by exertion or stress.
21. b. Slows the heart rate
22. d. Pedal edema
23. d. Low blood pressure
24. c. Apply the AED.
25. d. Pulseless ventricular tachycardia
26. b. Continued ventilation during the analysis phase to prevent hypoxia
27. d. Ask the neighbor to stop CPR so you can check the patient's pulse.
28. c. Early defibrillation
29. c. Both A and B are correct.
30. d. All of the above
31. b. Applying the defibrillator pads to his chest
32. d. The patient is in ventricular fibrillation or pulseless ventricular tachycardia.
33. c. Administration of epinephrine
34. c. A 19-year-old college athlete who collapsed during football practice and is pulseless and apneic
35. a. Cardiac arrest in children is more likely to be due to respiratory failure.
36. b. The EMT operating the defibrillator
37. d. None of the above
38. a. Defibrillators recognize ventricular tachycardia, which may be accompanied by a pulse.
39. d. Both A & C
40. a. Shock, 2 minutes of CPR, analyze, shock again
41. b. Tell the driver to stop, analyze the cardiac rhythm, and deliver a shock as necessary.
42. b. Apply the defibrillator pads and shock as indicated.
43. a. Assist ventilations with a bag-valve-mask device and supplemental oxygen and anticipate that the patient may go back into cardiac arrest.
44. d. Improving patient outcomes in the community
45. a. Oxygen
46. a. Chest pain that is relieved with nitroglycerin
47. d. His pain will not be alleviated with any of the above medications.
48. c. Oxygen and aspirin
49. c. Aortic aneurysm
50. d. The nearest hospital with cardiac catheterization
51. d. Pneumonia
52. c. Package the patient for rapid transport.
53. d. Congestive heart failure
54. b. Oropharyngeal airway

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- 55. d. Combitube
- 56. d. Early defibrillation
- 57. c. Continue CPR.
- 58. d. Continue CPR.
- 59. b. Insert a Combitube.